



# Service Advisory (Snow Thrower)

MTD-012

Models Affected: Model year 2005 500 series (steerable wheel drive) and 600 series (standard wheel drive) 2-stage snow throwers with plastic handle panels. The model series can be identified by the fifth position of the model number. (31AE6KQ3766 6 = 600 series)

Serial Number Range Affected: Snow throwers manufactured between 6/21/2004 (Date code: "...F214...") and 9/27/2004 (Date code: "...I274...")

Date: 12/03/2004

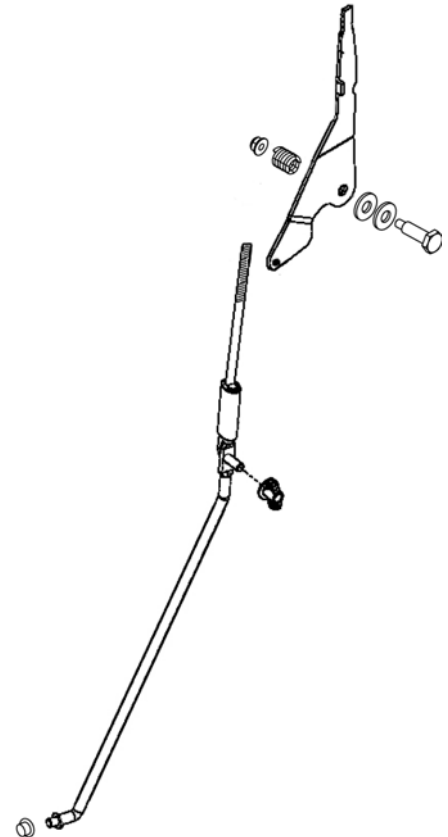
Subject: Shift Linkage

**PROBLEM:**

On some snow thrower units under certain operating conditions the connector sleeve may back up the upper shift rod. This allows the upper and lower shift rods to unlock and is evident in the inability to shift speeds. Some units may also experience excessive binding or flexing of the shift linkage. This may result in difficulties in shifting into the desired speed or variations in ground speed without shifting.

**CORRECTIVE ACTION:**

Use service kit **753-04903** (see attached service kit instruction sheet) **ONLY** when the connector sleeve will not remain locked down during normal unit operation or the operator is having difficulty shifting into or maintaining the desired speed. The revised shift linkage provides a clamping force on the connector sleeve thereby minimizing the potential of the shift rods from unlocking. It also improves the rigidity of the shift linkage to reduce binding and flexing. Service kit **753-04903** replaces upper shift rod 747-04284, upper shift rod 747-04348, lower shift rod 747-04266 and shift lever 790-00130 identified in the Operator's Manual - Illustrated Parts List.



\*\* Example of a serial number (1A023H00001) and how to read it.

1 = ENGINEERING LEVEL INDICATOR

A = MONTH OF PRODUCTION; A = January, B = February... H = August... K = November, L = December

02 = DAY OF THE MONTH; 01 = 1<sup>ST</sup> day of the month, 08 = 8<sup>TH</sup> day of the month, etc.

3 = YEAR OF PRODUCTION; 2 = 2002; 3 = 2003

H = PLANT CODE.

0 = ASSEMBLY LINE NUMBER.

0001 = DAILY SEQUENCE NUMBER; 0001 = 1st unit produced that day.

Warranty: Normal warranty terms apply. Indicate Service Advisory **MTD-012** and **747-04284, 747-04348, 747-04266 or 790-00130** (whichever is applicable) as the original failed part on the claim. Repair time allowance is **30 minutes (0.5 hrs.)**. List model and serial number of the snow thrower.

SERVICE MANAGER	PARTS MANAGER	SALES MANAGER	SERVICE TECH.	SERVICE TECH.

Circulate and Initial



# Service Kit 753-04903

Date: December 16, 2004

Subject: :Shift Linkage Replacement

Models 500 series (steerable wheel drive) and 600 series (standard wheel drive) 2-stage snow throwers; model year 2005

PURPOSE: Service Kit 753-04903 applies to all 500 series (steerable wheel drive) and 600 series (standard wheel drive) 2-stage snow throwers with plastic handle panels produced between June 1, 2004 and September 27, 2004 for model year 2005.

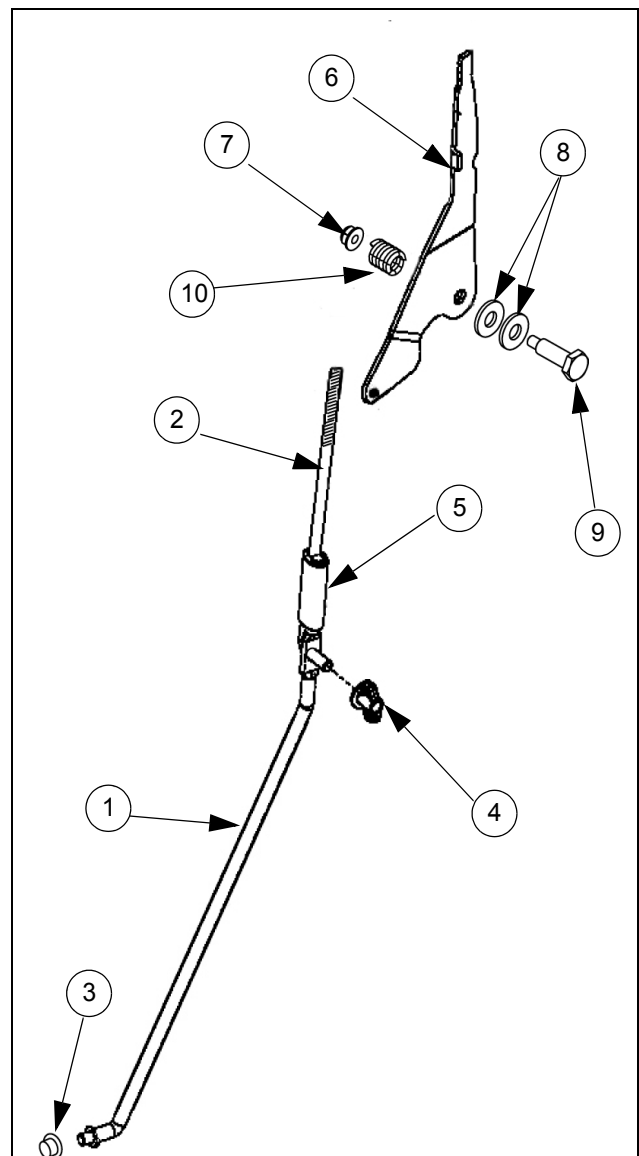
The model series can be identified by the fifth position of the model number. (31AE6KQ3766 6 = 600 series)  
The manufacturing date can be identified by positions two through five of the serial number.  
Example: (1G204B10112 G = July, 20 = 20th, 4 = 2004)

This kit should be used to replace the following parts: upper shift rod 747-04284, upper shift rod 747-04348, lower shift rod 747-04266, shift lever 790-00130

**NOTE: Save this Instruction Sheet. Refer to it when ordering replacement parts.**

## Service Kit Contents (See Figure A)

REF NO.	PART NO.	QTY.	DESCRIPTION
1	747-04257	1	LOWER SHIFT ROD
2	747-04324B	1	UPPER SHIFT ROD
3	726-0135	1	PUSH CAP
4	712-0421	1	WING NUT
5	750-04314	1	CONNECTING SLEEVE
6	790-00163	1	SHIFT LEVER
7	712-04064	1	FLANGE NUT
8	736-0300	2	FLAT WASHER
9	738-04125	1	SHOULDER BOLT
10	732-0193	1	SPRING
11	769-01500	1	THIS INSTRUCTION SHEET



**FIGURE A**

## Follow these instructions to replace and adjust the shift linkage.

1. Use pliers to remove the push cap which secures the lower shift rod to the shift arm. Discard the push cap. See Figure 1.



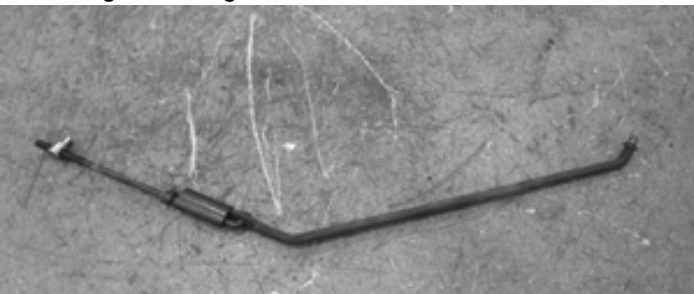
**Figure 1**

2. Working beneath the handle panel, remove the hairpin clip which secures the ferrule on the upper shift rod to the shift lever. Retain the hairpin clip for reassembly. See Figure 2.



**Figure 2**

3. Remove the shift linkage from the snow thrower. Remove the ferrule from the upper shift rod. Retain the ferrule for reassembly. Discard the rest of the shift linkage. See Figure 3.



**Figure 3**

4. Remove the knob from the top of the shift lever by rocking it side to side while firmly pulling upward on it. See Figure 4.



**Figure 4**

5. Use a 7/16 - inch wrench and a ratchet wrench with a 5/8 - inch socket to remove the hardware that secures the shift lever to the handle panel. Discard the hardware. Remove and discard the shift lever. See Figure 5.



**Figure 5**

6. Install the new shift lever into the handle panel. Secure it using the new shoulder bolt, 2 flat washers, spring and flange nut. Use a 7/16 - inch wrench and a ratchet wrench with a 5/8 - inch socket to tighten the hardware. See Figure 6.



**Figure 6**

7. Install the knob removed earlier onto the new shift lever by pushing it down into place. See Figure 7.



**Figure 7**

8. Assemble the new shift linkage as shown. Use the ferrule removed earlier and note that the holes in the connecting sleeve are two different diameters. The large hole slides over the lower shift rod and the small hole slides over the upper shift rod. See Figure 8.



**Figure 8**

9. Attach the shift linkage to the shift lever by inserting the ferrule into the hole in the shift lever and securing it with a hair pin clip. Inset the ferrule from the right hand side as shown. See Figure 9.



**Figure 9**

10. Insert the end of the lower shift rod into the shift arm and secure it with the new push cap using a pair of adjustable pliers. See Figure 10.



**Figure 10**

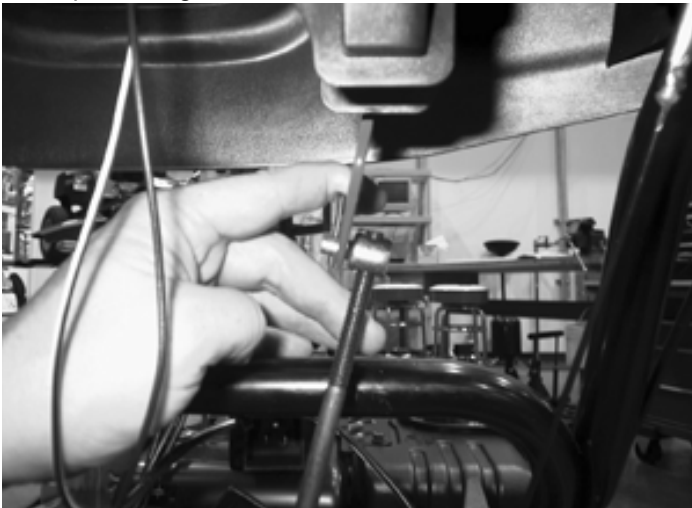
11. Place the shift lever in position 6 (forward speed 6). See Figure 11.

**NOTE:** If your snow thrower is a Craftsman or has the letter S or T in the seventh position of the model number, place the shift lever in position 5 (forward speed 5). example: 31AE5HIG799 See Figure 11.



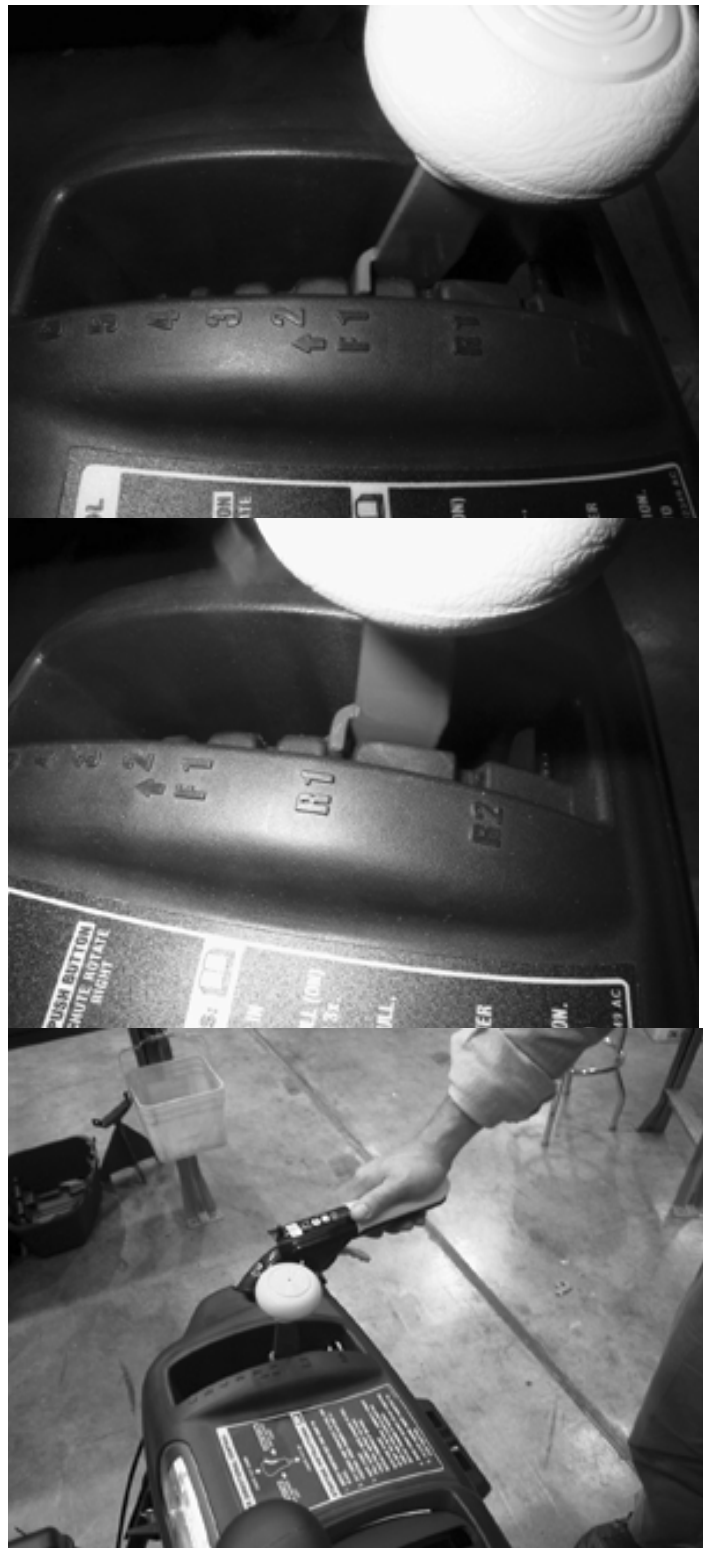
**Figure 11**

12. Disconnect the shift linkage from the shift lever by removing the hairpin clip which secures the ferrule and removing the ferrule from the hole in the shift lever. Push down on the shift linkage until it stops. Thread the ferrule up or down the upper shift rod until it lines up with the hole on the shift lever. Put the ferrule back into the hole on the shift lever and secure it with the hairpin clip. See Figure 12.



**Figure 12**

13. Start the snow thrower and test the shift linkage adjustment. Place the shift lever in F1 and depress the drive clutch lever. The unit should drive forward. Release the drive clutch lever and place the shift lever in R1. Depress the drive clutch lever and the unit should drive backwards. The speed should be about the same in F1 and R1. If it is not, readjust the shift linkage. Threading the ferrule up the upper shift rod will increase the speed in F1 and decrease the speed in R1. Threading it down the rod will decrease the speed in F1 and increase the speed in R1. See Figure 12 and Figure 13.



**Figure 13**